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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/053,225 | 11/02/2001 | Steve Lasecki | 09712-162001/ Z-248 | 3551 |

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EXAMINER

SONG, SARAH U

ART UNIT PAPER NUMBER

2874

DATE MAILED: 12/11/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/053,225

Applicant(s)

LASECKI ET AL.

Examiner

Sarah Song

Art Unit

2874

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 May 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s) ____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 1, 4, 5, 7 6) ☐ Other: _____

DETAILED ACTION

Information Disclosure Statement

1. The prior art documents submitted by the applicant in the Information Disclosure Statements filed on November 2, 2001, March 13, 2002, April 11, 2002 and October 15, 2002 have all been considered and made of record (note the attached copy of form PTO-1449).

Drawings

2. This application has been filed with fourteen (14) sheets of drawings, which have been approved by the Examiner.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-3, 6, 12-18, 20 and 21 rejected under 35 U.S.C. 102(e) as being anticipated by Steinberg et al. (U.S. Patent Application Publication 2002/0028037). Steinberg et al. disclose an apparatus comprising a fiber holder 1402, a first plurality of indentations 1425 and v-grooves, an optical fiber 1408 within one of said first plurality of indentations (elongated v-grooves), a base substrate 1400, a second plurality of indentations 1425, a plurality of spacers 1415 within one of the second plurality of indentations, wherein the fiber holder is mounted on said base with said plurality of spacers within said first plurality of indentations, and an optical device 1401/1405

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comprising a plurality of lenses 316/317 aligned with the optical fibers. The base further comprises a third plurality of indentations 1414, and a second plurality of spacers 1415 within a corresponding one of said third plurality of indentations, wherein the optical device is mounted to said base in contact with at least three of said second plurality of spacers and establishes a vertical and a horizontal position of said optical device. The device has a round central section (cross-section of a lens which is spherical or dome shaped, or a GRIN lens). The device also has at least one flat face (e.g. an end face). The indentations formed in said base includes at least one indentation located adjacent to an edge of said base, the spacer within the indentation inherently establishes a known distance from a contact point on said spacer to a point on said base. See figures 3 and 14.

5. Claim 22 is rejected under 35 U.S.C. 102(b) as being anticipated by Blonder et al. (U.S. Patent 5,179,609 provided by the Applicant). Blonder discloses a device comprising a first optical device 32/48 mounted on a first base 30 having a partial indentation 40/42 formed in an edge of said first base that holds a spacer 46/48 to protrude beyond the edge of said first base and establishes a known distance from a point on the spacer to the first optical device (inherent); a second optical device 14 mounted on a second base 12; wherein the second optical device is aligned to the first optical device by placing the second base in contact with the space held in the first base. Therefore, the method steps of "mounting" and "aligning" are inherent features of the disclosure of Blonder et al.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Steinberg et al. Steinberg et al. discloses all of the limitations of the claims as discussed above, except for the spacers and device being made of the same material. However, Steinberg et al. suggests that the device substrates be made of silicon or a silicon containing material [0029] and that the guide balls be made of ceramics, metals, quartz, silicon nitride or zirconium [0031]. It is additionally known in the art for optical waveguides and lenses to be made of silicon containing material, e.g. silica or quartz. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the optical device and spacers of the same material in order to simplify the manufacturing process.

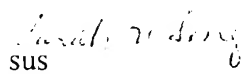
8. Claims 4, 5, 8-11 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Steinberg et al. in view of Dautartas et al. (U.S. Patent 5,550,088). Steinberg et al. discloses all of the limitations of the claims as discussed above, including wherein one of the second plurality of indentations 1414 is formed to a different depth than a second of the second plurality of indentations 1425, and additionally discloses a pyramidal-shaped pocket, but does not disclose a trapezoidal-shaped pocket. Dautartas et al. discloses a trapezoidal-shaped pocket in which a spherical object is mounted. Dautartas et al. shows that a trapezoidal-shaped pocket is an equivalent structure known in the art. Therefore, because these two pockets were art-recognized equivalents at the time the invention was made, one of ordinary skill in the art would have found it obvious to substitute the trapezoidal-shaped pocket of Dautartas et al. for the pyramidal-shaped pocket of Steinberg et al.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Fairchild et al. discloses an apparatus comprising spacers of different diameters to provide an offset angle of a substrate relative to a base.

10. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

11. Any inquiry concerning the merits of this communication should be directed to Examiner Sarah Song at telephone number 703-306-5799. Any inquiry of a general or clerical nature, or relating to the status of this application or proceeding should be directed to the receptionist at telephone number 703-308-0956 or to the technical support staff supervisor at telephone number 703-308-3072.


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December 5, 2002

